



HUNTERS POINT NEWS

# New reports suggest Navy likely spread radiation all over Hunters Point, never checked for contamination

*Review of Navy records for San Francisco's biggest redevelopment project reveals "deeply flawed" process, say researchers*

By Chris Roberts | @cbloggy | Oct 19, 2018, 3:37pm PDT



Photo by Chris Roberts

he U.S. Navy spread radioactive contamination all over the former shipyard at San Francisco's Hunters Point—and likely over nearby

**T**residential areas—and has made repeated assurances that the area is clean despite never checking many of these potentially contaminated areas for cancer-causing radioactive waste, according to a pair of reports from academic researchers released Thursday.

From the end of World War II through its closure in 1974, the 450-acre former shipyard in San Francisco's southeastern corner was a key installation in the U.S. military's nuclear warfare and research complex.

It is now an EPA Superfund site contaminated with radioactive and toxic waste that developers and city officials have been working to transform into a new neighborhood with more than 10,000 units of housing, the biggest redevelopment project in the city since the 1906 earthquake.

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This process has been marred by delays and scandal, including admitted fraud by an environmental contractor paid \$250 million by the Navy to clean the shipyard, and allegations by environmental advocates of a cover-up.

Despite long-standing belief from environmental watchdogs and neighborhood advocates that contamination from the shipyard may be linked to health problems in the nearby community, including asthma and cancer, the Navy and federal and state environmental regulators have long said that most of the shipyard is free of contamination and poses no threat.

According to the Navy, there are 883 discrete "sites," areas of land or buildings, at the former shipyard, which has been in the redevelopment process since the 1990s. All but 91 of them were declared free from radiation, as a recent visualization from NBC Bay Area shows.

Those claims are based on a publicly available document released by the Navy in 2004.

A thorough review of this same document reveals those claims are “not credible,” said Daniel Hirsch, a retired lecturer of nuclear policy at the University of California, Santa Cruz, and the lead author of the reports.



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“The Navy claim that no contamination can exist in 90 percent of the shipyard is not credible,” Hirsch told Curbed SF on Thursday. “There are numerous mechanisms whereby contamination migrated extensively.”

In an email Friday, Navy officials dismissed Hirsch’s findings, but did not offer details.

“After a cursory review of the reports, the Navy disagrees with conclusions about radiological conditions at the former Hunters Point Naval Shipyard (HPNS) and the status of its Historical Radiological Assessment,” said Derek Robinson, environmental cleanup coordinator for the Navy at Hunters Point.

When asked for comment, Soledad Calvino, an EPA spokesperson, said, “EPA’s focus right now is on working with the Navy and other regulatory agencies to create a sampling approach and plan for Parcel G, which includes a scan of all accessible areas of Parcel G. As we move forward, EPA, along with the other regulatory agencies, will assess proposed retesting at other parcels.”

Following Operation Crossroads in 1946, when the U.S. tested several atomic bombs near Bikini Atoll in the Marshall Islands, at least seventy ships irradiated by the tests returned to Hunters Point for what the military called “decontamination.”

The process included burning off 600,000 gallons of irradiated fuel oil and sandblasting paint and marine life off of the hulls of the radioactive ships. One ship, an aircraft carrier, remained moored at the shipyard for years, silently emitting radiation, before it was loaded with waste and then sunk off of the Farallon Islands.

Since radioactivity cannot be “cleaned,” and dissipates only with time, the whole process merely spread the radiation to surrounding areas, according to researchers.

“[S]ince radioactivity cannot be neutralized by physical means, ‘decontamination’ in practical effect meant merely moving it from the radioactive ships to Hunters Point,” wrote the researchers.

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The shipyard was also home to a major nuclear-warfare research lab that injected animals with radioactive material. There is also evidence suggesting that experiments were conducted on humans. The lab examined radioactive material from hydrogen bomb tests in the South Pacific and Nevada, and the lab also had licenses from the government to handle enough radioactive plutonium, uranium, strontium, cesium, and other highly dangerous material to level an entire city and contaminate “200 million tons of soil,” according to the researchers.

Byproducts of nuclear blasts, these radioactive elements are extremely hazardous to human health. Exposure is linked to numerous health problems including lung cancer, bone cancer, thyroid cancer, and other deadly diseases.

It is not clear how much radioactive material was present at Hunters Point at any one time. What records are available are often sketchy or incomplete.

But the government did authorize the Naval Radiological Defense Laboratory, or NRDL, which operated at Hunters Point from 1946 until 1969, to handle up to 2,400 pounds of uranium, 2,000 grams of plutonium, and other radioactive elements in quantities large enough to contaminate “ten trillion tons of soil,” according to records highlighted by Hirsch and his team in their report.

As Curbed SF has previously reported, the Navy is also known to have spilled radioactive material in buildings and on the ground between buildings. Whether the shipyard has been adequately checked for contamination and spills is a matter of contention.



Photo by Associated Press/Eric Risberg

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The shipyard has been divided into alphanumeric parcels. Both the Navy and the EPA long insisted that a hilltop area called Parcel A—an area declared safe in the 1990s and passed on to the city for development in 2004—was not used for any ship repair or research activities and is thus safe.

However, a scan of the area conducted in 2002 has been derided by experts as inadequate—and earlier this summer, a small piece of radioactive material was discovered near the occupied condos at the SF Shipyard, a development built by homebuilding giant Lennar Corp. and its subsidiary FivePoint, further throwing the official line into question.

Homeowners at the SF Shipyard have filed suit against Lennar, FivePoint, and Tetra Tech.

However, two areas where the Navy ran the lab and may have stored radioactive materials have been in private hands since the mid-1980s. They are not part of the cleanup project.

The Navy has paid a series of contractors at least \$1 billion to clean the shipyard. Contractors and workers with one of those firms, a company called Tetra Tech, have admitted to faking part of the cleanup. According to the EPA, as much as 97 percent of Tetra Tech's work at the shipyard shows signs of alleged fraud. Two former Tetra Tech supervisors have pleaded guilty in federal court to fraud and are serving time in prison.

Over the summer, the Navy released a proposal to retest some of the land where Tetra Tech had done work. In comments in late September, the EPA criticized the Navy for a lack of transparency and for failing to specify how various radioactive elements would be identified in a retesting plan.

The Navy's retesting proposal includes scans for gamma-radiation emitting objects. Many cancer-causing radioactive elements present at Hunters Point, including strontium, emit alpha or beta particles.

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Both Tetra Tech's activities and the inadequate Navy controls identified in the report suggest that Hunters Point has been contaminated to a level not previously publicly known, said Hirsch.

"The full shipyard, as well as neighboring areas, should have soil sampled and sent to laboratories," said Hirsch, going on to allege, "No one knows the extent or severity of the contamination because 90 percent of the shipyard has never been sampled and what was sampled was fabricated by Tetra Tech."

What contamination the Navy admits is present has long been described as "low-level." This is a technical term that can be misleading, said Peter Strauss, who has served as a technical advisor to other advocacy groups monitoring radioactive cleanups, and who was not involved with the reports.

"'Low-level' is a term of art," Strauss told Curbed SF. "It doesn't mean low levels of contamination. You can look that term up."

"Low-level radioactive waste" is a catch-all term that includes radioactive waste products like rags and animal carcasses—like some of the contamination at Hunters Point buildings and soil and in the 44-acre landfill.

The term "low-level" can often fool the public into thinking that it poses a limited threat, Strauss said, but in fact "it's potentially high-risk."

“There’s no safe level of radioactivity,” he added. “That’s a statement made all the time by health-risk assessors.” ■